

WHAT IS CLAIMED IS:

1. (currently amended) A microfiche device for producing microfiche, said microfiche device comprising:

a light source (4) configured to emit a light beam (6, 11) for exposing during an exposure time a microfilm (12) based on a data stream supplied to said light source (4) by a computer for generating differently sized image formats on the microfilm;

at least one optical device positioned between said light source and the microfilm such that said light beam is guided through said at least one optical device to the microfilm:

means for carrying wherein the at least one optical device comprises an optical unit rotatable about a rotational axis and linearly moveable in a direction along said rotational axis to guide out a relative rotational movement between said light beam (11) and across a width and a length of a portion of the microfilm (12) curved about said rotational axis during said exposure time such that the differently sized image formats are produced in any arrangement on the microfilm.

2. (canceled)

3. (canceled)

4. (currently amended) The microfiche device according to claim 1 [3], wherein said at least one optical device (7, 8) comprises a telescope unit (7).

5. (canceled)

6. (currently amended) The microfiche device according to claim 1 [5], further comprising a shaft (9) on which said optical unit (7, 8) is seated.

7. (canceled)

8. (currently amended) The microfiche device according to claim 1 [5], comprising a microfilm drum (13) wherein the portion of the microfilm (12) to be exposed is positioned in said microfilm drum (13).

9. (currently amended) The microfiche device according to claim 8, wherein said microfilm drum (13) has a curved support (18) configured to support the portion of the microfilm (12) to be exposed.

10. (currently amended) The microfiche device according to claim 8,

wherein said microfilm drum (13) has a passage way (19) and wherein said optical unit (8) is positioned at least partially in said passageway (19) during said exposure time.

11. (currently amended) The microfiche device according to claim 9, wherein said support (18) is curved about said rotational axis (21).

12. (currently amended) The microfiche device according to claim 11, wherein the microfilm (12) has a longitudinal extension in a direction of said rotational axis (12).

13. (currently amended) The microfiche device according to claim 11, wherein the microfilm (12) has a longitudinal extension in a direction transverse to said rotational axis (12).

14. (currently amended) The microfiche device according to claim 1 [5], wherein said optical unit (8) has at least one reflective surface (10) configured to reflect said light beam (11) toward the microfilm (12).

15. (currently amended) The microfiche device according to claim 14, wherein said optical unit (8) is a spinning unit.

16. (currently amended) The microfiche device according to claim 14, wherein said optical unit (8) is a polygon member.

17. (currently amended) The microfiche device according to claim 1 [5], further comprising at least one carriage (2), wherein said optical unit (8) is arranged on said at least one carriage (2).

18. (currently amended) The microfiche device according to claim 17, wherein said at least one carriage (2) is moveable in a direction of said rotational axis (21).

19. (currently amended) The microfiche device according to claim 17, wherein said light source (4) is arranged on said at least one carriage (2).

20. (currently amended) The microfiche device according to claim 1 [5], further comprising a light guide configured to guide said light beam (6) emitted by said light source (4) to said optical device (7-8).

21. (currently amended) The microfiche device according to claim 8, wherein said microfilm drum (13) is configured to be moveable relative to said optical device (7-8).

22. (currently amended) The microfiche device according to claim 14, wherein said optical unit (8) is configured to be rotatably driven at a constant rotational speed at least within the range in which said light beam (41) reflected on said reflective surface (10) impinges on the microfilm (12).

23. (currently amended) The microfiche device according to claim 1, further comprising at least one modulator (5) arranged downstream of said light source (4) in a path of said light beam (6).

24. (currently amended) The microfiche device according to claim 23, further comprising at least one digital-analog converter (27) connected to said at least one modulator (5).

25. (currently amended) The microfiche device according to claim 23, wherein said at least one modulator (5) modulates said light beam (6) based on said data stream (25).

26. (currently amended) The microfiche device according to claim 9, wherein said support (18) has a guide (17) for the microfilm (12).

27. (currently amended) The microfiche device according to claim 9, wherein said guide (17) is configured to guide the portion of the microfilm (12) to be exposed laterally therethrough.

28. (currently amended) The microfiche device according to claim 9, wherein said support (18) is configured to pull the portion of the microfilm (12) to be exposed against said support (18) by applying a vacuum.

29. (currently amended) The microfiche device according to claim 28, wherein said support (18) is configured to release the portion of the microfilm (12) after exposure for further transport of the microfilm (12).

30. (currently amended) The microfiche device according to claim 1 [5], further comprising at least one synchronizing unit (29) configured to synchronize the supply of said data stream (25) with at least one of the rotational speed and the rotational travel of said optical unit (8).

31. (currently amended) The microfiche device according to claim 30, wherein said at least one synchronizing unit (29) has at least one sensor (29) positioned

in the path of said light beam (11) shortly before a leading end of the portion of the microfilm (12) to be exposed.

32. (canceled)

33. (canceled)

34. (canceled)

35. (currently amended) A method for producing a microfiche in a microfiche device having a light source (4) configured to emit a light beam (6, 11) for exposing during an exposure time a microfilm (12) based on a data stream supplied to said light source (4) by a computer, said method comprising the steps of:

digitalizing documents to be stored on microfiche to form a data stream;
guiding a light beam emitted by a light source through at least one optical unit onto the microfilm;

controlling [a] the light beam (11) emitted by [a] the light source (4) for exposing during an exposure time a microfilm (12) based on the data stream;

exposing the microfilm (12) with the light beam (11) line by line length-wise or width-wise for generating images on the microfilm (12) differently sized image formats in any arrangement on the microfilm by rotating the at least one optical unit about a rotational axis and linearly moving the at least one optical unit in a direction along the rotational axis across a width and a length of a portion of the microfilm curved about the rotational axis.

36. (currently amended) The method according to claim 35, wherein, in the step of exposing, a relative movement of the light beam (11) and the microfilm (12) is carried out after each line of exposure.

37. (currently amended) The method according to claim 35, wherein, in the step of exposing, a relative movement of the light beam (11) and the microfilm (12) is carried out continuously during exposure.

38. (currently amended) The method according to claim 35, comprising the steps of storing the data resulting from the step of digitalizing on a data storage device and combining the data in the form of a data-pixel stream (25).

39. (currently amended) The method according to claim 38, further

comprising the step of supplying the data-pixel stream (25) to a modulator (5) of the microfiche device.

40. (currently amended) The method according to claim 39, wherein the modulator (5) modulates the light beam (14) based on the data-pixel stream (25).

41. (currently amended) The method according to claim 39, wherein the data-pixel stream (25) is supplied as a function of at least one of the rotational speed and the rotational travel of an optical unit (8) of the microfiche device.

42. (currently amended) The method according to claim 41, further comprising the step of rotating the optical unit (8) at a constant speed.

43. (currently amended) The method according to claim 35, further comprising the step of at least reducing the output of the light source (4) when the light beam (14) does not impinge on the microfilm (12).

44. (new) A method for producing a microfiche in a microfiche device having a light source configured to emit a light beam for exposing during an exposure time a microfilm based on a data stream supplied to said light source by a computer, said method comprising the steps of:

digitalizing documents to be stored on microfiche to form a data stream;
controlling a light beam emitted by a light source for exposing during an exposure time a microfilm based on the data stream;

exposing the microfilm with the light beam line by line length-wise or width-wise for generating images on the microfilm,

wherein a portion of the microfilm exposed in the step of exposing is so long that the exposed portion of the microfilm is separated into two microfiche, wherein in the step of exposing different data are supplied to the portion such that after separation of the exposed portion of the microfilm, the two separate microfiche contain completely different contents.